

State of California
AIR RESOURCES BOARD

Final Statement of Reasons for Rulemaking
Including Summary of Comments and Agency Responses

**PUBLIC HEARING TO CONSIDER ADOPTION OF REGULATORY AMENDMENTS
TO THE CALIFORNIA HEAVY-DUTY VEHICLE INSPECTION PROGRAM AND
PERIODIC SMOKE INSPECTION PROGRAM**

Public Hearing Date: December 11, 1997
Agenda Item No.: 97-10-2

I. GENERAL

This rulemaking was initiated by the publication on October 24, 1997, of a notice of public hearing to consider the adoption of amendments to the regulations governing the California Heavy-Duty Vehicle Inspection Program (HDVIP, or the roadside program) and the Periodic Smoke Inspection Program (PSIP, or the fleet program). A Staff Report (Initial Statement of Reasons for Proposed Rulemaking) was also made available for public inspection on October 24, 1997. The Staff Report, which is incorporated by reference herein, contained the text of the regulatory amendments as initially proposed by the staff, along with an extensive description of the rationale for the proposal. The proposed action consisted of amendments to California Code of Regulations, title 13, sections 2180 through 2188, and 2190 through 2194.

On December 11, 1997, the Air Resources Board (ARB or Board) conducted a public hearing at which it received written and oral comments on the regulatory proposal. At the conclusion of the hearing, the Board approved the originally proposed amendments with one minor modification to section 2182 that was proposed by staff. In accordance with section 11346.8 of the Government Code, the Board in Resolution 97-44 directed the Executive Officer to make the text of the modified amendments available to the public for a supplemental written comment period of 15 days. He was then directed either to adopt the amendments with such additional modifications as may be appropriate in light of the comments received, or to present the regulations to the Board for further consideration if warranted in light of the comments.

The text of the Board-approved modification to section 2182, with the modification clearly indicated, was made available for a supplemental 15-day comment period by issuance of a "Notice of Public Availability of Modified Text" on December 22, 1997. One written comment was received during the 15-day comment period. After considering the comment, the Executive Officer issued Executive Order G-98-008, adopting the amendments.

Modification to the original proposal. The modification approved by the Board revised California Code of Regulations, title 13, section 2190(a) and (b) to exclude heavy-duty vehicles employed solely for personal use from the periodic smoke inspection requirements of the PSIP. These vehicles will still be subject to the roadside inspection requirements of the HDVIP. The fleet program requires that owners of fleets consisting of two or more heavy-duty diesel vehicles conduct or arrange for an annual smoke opacity test on each heavy-duty vehicle. These requirements are appropriate for commercial or public agency fleets who can generally perform their own inspections or can pool their inspections at common inspection facilities. However, a person could occasionally have his or her personal use vehicles subject to the requirements because the person happens to own two heavy-duty diesel vehicles — perhaps a pick-up truck and a recreational vehicle. Requiring such persons to seek out a heavy-duty vehicle repair facility equipped to conduct smokemeter tests could be needlessly burdensome, especially because the use patterns on personal use vehicles is typically less than it is on commercial vehicles. Accordingly, the Board excluded from the periodic fleet inspection requirements those vehicles that are operated solely for personal use. Vehicles employed in mixed commercial and personal use will continue to be subject to the PSIP requirements.

Incorporation of Test Procedures. California Code of Regulations, title 13, sections 2180(a)(24) and 2193(e)(3)(B) incorporate two test procedures established by the Society of Automotive Engineers (SAE). Section 2180(a)(24) incorporates by reference Recommended Practice SAE J1667 “Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles,” as issued February 1996 (“1996-02”). Section 2193(e)(3)(B) incorporates by reference SAE procedure J1243, “Diesel Emission Production Audit Test Procedure,” May 1988. These test procedures are readily available from the ARB upon request and were made available in the context of this rulemaking in the manner provided in Government Code section 11346.5(b). A copy of the SAE J1667 test procedure was included as an attachment to the Staff Report, and the SAE J1243 test procedure was identified in the 15-day notice, which also identified the ARB staff member from whom a copy could be obtained. The test procedures are also published by SAE, a well-established and prominent organization in the automotive field, and are therefore reasonably available to the affected public from a commonly known source.

The SAE test procedures are incorporated into the California Code of Regulations by reference because it would be cumbersome, unduly expensive and otherwise impractical to publish them in the Code. They are published by SAE in a readily useable form. The SAE J1243 test procedure was previously incorporated by reference in section 2182(g). It has been the longstanding and accepted practice for the ARB to incorporate SAE recommended practices and procedures into the California Code of Regulations by reference (see, e.g., Cal.CodeRegs. tit. 13, §§ 1968.1(k), 1977.) As the interested audience for the procedures is small and is generally accustomed to following SAE procedures, distribution to all recipients of the Code is unnecessary.

No mandates. The Board has determined that this regulatory action will not result in a mandate to any local agency or school district, the costs of which are reimbursable pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

Alternatives. The Board has determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed or would be as effective and less burdensome to affected private persons than the action taken by the Board.

II. SUMMARY OF COMMENTS AND AGENCY RESPONSES

At the December 11, 1997 hearing, oral testimony was received from (those marked with an asterisk also submitted written versions of their oral testimony):

ACR World Wide LLC
Marc Becker Diesel Fuel Injection
California Bus Association (CBA)
California Trucking Association (CTA)*
Betsy Crowder (Citizen)*
Engine Manufacturers Association (EMA)*
H.G. Makelim Co./Robert Bosch
Natural Resources Defense Council (NRDC)
Steve Soriano (Citizen)*.

Further testimony was given on videotape by:

Pius Eberle of Bell Turbo
Rick Baumgardner of Coast Fuel Injection
Mike Robertson of the College of Alameda
Kris Wolfenstein of Diesel Power Systems
David Walker of Golden West College
Mike Cavanaugh of Los Angeles Trade Technology College.
Marc Fernandez of PG&E
Gene Glanzer of DynoData, Inc.

Additional written comments were received by the hearing date from:

Aaron Consulting
American Lung Association of California (ALACA)
American Trucking Associations (ATA)
Antelope Valley Bus Inc.
Atlantic Richfield Company (ARCO)

Bay Area Air Quality Management District (BAAQMD)
Marc Becker Diesel Fuel Injection
Bell Turbo
Bureau of Automotive Repair (BAR)
California Energy Commission (CEC)
California State University (CSU) Fresno
Chevron
Coalition for Clean Air (CCA)
College of Alameda
Diesel Power Systems
Environmental Defense Fund (EDF)
Federal Express
Francis J. Felix, M.D.
Methanex
Northeast States for Coordinated Air Use Management (NESCAUM)
Office of Environmental Health Hazard Assessment (OEHHA)
D.L. Page Associates Inc.
Elisabeth A. Pforr
Project Clean Air (PCA)
R. L. Righetti Enterprises Inc.
Sacramento Metropolitan Air Quality Management District (SMAQMD)
San Diego County Air Pollution Control District (SDAPCD)
Santa Ana College
Sierra Club of California
James M. Soares Trucking Inc.
Telonic Berkeley
South Coast Air Quality Management District (SCAQMD)
William Staiger for SAE J1667 Committee
William Staiger for Robert Bosch Corporation
Sunline Transit Agency
Union of Concerned Scientists
University of California (UC) Riverside
Ventura County Air Pollution Control District (VAPCD)
Robert H. Wager Co. Inc.
World Savings

Set forth below is a summary of each objection or recommendation made regarding the specific regulatory actions proposed, together with an explanation of how the proposed action was changed to accommodate each objection or recommendation, or the reasons for making no change. The comments have been grouped by topic wherever possible. Comments not involving objections or recommendations specifically directed towards the rulemaking or to the procedures followed by the ARB in this rulemaking are not summarized below.

A number of the commenters supported adoption of the proposed amendments pertaining to the Heavy-Duty Vehicle Inspection Program and the Periodic Smoke Inspection Program. Comments in support of the amendments are not summarized below. These commenters included:

ACR World Wide LLC
ALACA
Antelope Valley Bus Inc.
ARCO
BAAQMD
Marc Becker Diesel Fuel Injection
Bell Turbo
BAR
CEC
CSU Fresno
Chevron
Coast Fuel Injection
College of Alameda
Diesel Power Systems
EDF
Francis J. Felix, M.D.
Gene Glanzer
Golden West College
Los Angeles Trade Technology College
Methanex
NRDC
NESCAUM
OEHHA
PG&E
D.L. Page Associates Inc.
PCA
SMAQMD
SDAPCD
Santa Ana College
Sierra Club of California
James M. Soares Trucking Inc.
Steve Soriano
SCAQMD
Sunline Transit Agency
UC Riverside
VAPCD
Robert H. Wager Co. Inc.
World Savings

A. General comments regarding administration of the programs

1. Reinstatement of Programs

Comment: I would prefer to see the program restarted earlier than proposed, but the phase in plan is more than fair to those affected. (Aaron Consulting)

Comment: We would prefer to see the enforcement begin in January of 1998, but the proposed implementation will give all parties ample time to comply. (Telonic Berkeley)

Comment: Speed up the proposed phase-in schedule, starting in early spring with compliance within 6 months. (Betsy Crowder)

Agency response: These comments refer to both the roadside and fleet programs, with added emphasis on the 15-month phase-in period of the fleet program. By law, the amendments to the regulations governing both programs will become effective 30 days after the Office of Administrative Law files them with the Secretary of State, unless the ARB requests an earlier effective date. The amendments pertaining to the roadside program will be enforceable as soon as they become effective. The amendments to the fleet program retain the 15-month phase-in period previously established by the Board, with the phase-in starting July 1, 1998.

Staff requires a period of time to adequately implement the administrative details relevant to these programs, such as computer procurement, software development of the new program changes and training. Staff expects it will be equipped to begin enforcement of the roadside program by Monday, May 4, 1998. Accordingly, the ARB is requesting that OAL approve an early effective date, making the amendments effective on May 4 or the date of filing with the Secretary of State, whichever occurs later. The staff will widely disseminate this anticipated start-up date so that the trucking and bus industries have adequate advance notice.

The July 1, 1998 start date for the fleet program was established so that fleets would be aware ahead of time of the specific start date. Continued application of the 15-month phase-in period for the fleet program is appropriate. Requiring fleets to perform immediate, complete testing of all vehicles would result in an inordinate amount of down time and unwarranted expense, and would make it difficult for fleet owners to stagger the annual retests throughout the year. We believe that few benefits of the program would be compromised if fleet owners comply with the phase-in schedule.

2. Need for Additional Inspectors

Comment: To offset the impacts of program delays on the public, on-road inspection programs in nonattainment areas should be at least doubled over what they were during the prior implementation phase. (Sierra Club)

Comment: Increase the number of roadside inspectors to at least 100 throughout the state. (Betsy Crowder)

Comment: By beefing up the roadside teams, all trucking companies will be subject to the same rules and the dirty vehicles will be fined. (CTA)

Agency response: The regulations do not identify the number of inspectors to be used in enforcing the roadside program. The ARB will consider adding to the number of inspectors. However, given the funding levels allotted for this program, the number of inspectors is currently limited to 9 teams consisting of 2 inspectors, and 2 field supervisors. One of the strengths of maintaining both the fleet and roadside programs is that compliance with the fleet program will augment the efforts of the roadside program and will, in the short term, curtail the need for additional inspectors. Additionally, it is anticipated that a “secondary deterrence factor” (i.e., voluntary compliance with the program in order to avoid a roadside test/citation) will also reduce the need for additional inspectors.

3. Periodic Smoke Inspection Program Is Not Necessary

Comment: We continue to question the underlying value and emissions benefits of the PSIP, particularly for newer technology truck engines (post 1994). Requiring an annual inspection of excessive smoke emissions from a truck one time a year is merely a 10-minute snapshot of that vehicle’s emissions at that moment, and one which we believe serves very little value, particularly with an aggressive roadside program. (ATA)

Comment: As for the Periodic Smoke Inspection Program (and after repair smoke test), they appear to provide limited, if any, benefit, yet impose potentially significant costs. EMA encourages ARB to consider the concerns of those most immediately impacted by those programs. (EMA)

Comment: CTA opposes the PSIP in its entirety. California’s trucking industry is economically disadvantaged by rules that only apply to California trucks. Requiring California’s fleets to comply with two different programs reduces our ability to compete in our own state and does nothing for the air quality. (CTA)

Agency response: The Board cannot completely eliminate the PSIP because Health and Safety Code section 43701(a) mandatorily directs the ARB to adopt a program requiring owners of heavy-duty diesel motor vehicles to perform regular inspections of their vehicles for excessive smoke emissions. While the roadside program is an aggressive effort that will capture a significant number of the excessively-smoking vehicles on California's highways (including interstate and international vehicles), it cannot be expected that all such vehicles will be caught by this program. The fleet program will complement the roadside program by addressing all California fleet vehicles and by providing fleet owners/operators with an annual inventory that identifies those vehicles that are in danger of failing a roadside inspection. The objective of this program is to have fleet owners/operators keep their vehicles properly maintained and tamper-free.

The staff acknowledges that the newer-technology engines are less likely to be tampered, and are designed to have very low smoke emissions. This is why the regulations governing the fleet program are being amended to exempt vehicles in their first four model years.

It is expected that the benefits of maintaining fleet vehicles under the PSIP (e.g., prolonged engine life, fuel cost savings, and reduced vulnerability to citations under California's and, eventually, other states' roadside inspection programs) will outweigh the costs of testing and record keeping. While the PSIP is separate from the HDVIP, it makes use of the same test procedure, equipment, standards and cutpoints as those used in the roadside inspections.

4. Specific Smoke Test Procedures

Comment: It is imperative that the procedures address placement of full-flow devices as prescribed in appendix "D" of SAE J1667. Testing done by SAE at Golden West College was performed under ideal conditions with no wind or placement factors figured into the process. The potential for erroneously low readings by self-testing fleets is very high with most equipment of this type and as such could cause a fleet to think they are compliant when in fact they are not. The proper training program should limit this problem, but it is an area of concern. Field conditions such as wind, rain, meter placement and radio interference could have an effect on certain meter types. (William Staiger, as Chairman of the SAE J1667 Committee and on behalf of Robert Bosch Corporation)

Agency response: The SAE J1667 Recommended Practice adopted by the ARB includes Appendix D, "Exhaust Systems and Special Applications." Thus tests conducted under the adopted procedures must comply with the Appendix D provisions on placement of devices. The ARB participates in the California Council on Diesel Education Technology, a joint educational effort sponsored by the trucking industry, State government and the California Community Colleges. Any training offered through these institutions or other

outreach efforts will emphasize strict adherence to the SAE J1667 testing protocol, including ambient conditions and correct placement of the smokemeter device. Radio interference is addressed in the smokemeter design.

B. Comments regarding specific elements of the regulations

1. Rolling Exemption for Fleet Program

Comment: Do not exempt any vehicles, no matter what model year they are. (Betsy Crowder)

Comment: Federal Express would like to register their support for an exemption for vehicles less than five years old from the Periodic Smoke Inspection Program. ARB currently exempts light-duty vehicles from inspection requirements, based on the fact that a negligible percentage of these vehicles fail the inspection. Federal Express believes that a similar exemption is justified for heavy-duty vehicles based on the same rationale. (Federal Express Company)

Comment: Imposition of the PSIP in addition to the HDVIP is particularly inappropriate for vehicles that are post 1991 and electronically controlled. These newer vehicles don't smoke and companies that are operating them should be rewarded for accelerating fleet turnover, not penalized with administrative responsibilities. (CTA)

Comment: For the newer technology diesel engines, the PSIP borders on the ridiculous, requiring additional expense and administrative compliance burden to prove acceptable visible smoke levels in engines designed to produce invisible emissions. These engines have particulate standards 83 percent lower than those manufactured in 1987 and prior years. It is extremely unlikely that new technology engines would ever fail the smoke emissions test. (ATA)

Agency response: It is appropriate to exempt newer engines from the requirements of the fleet program. Newer engines that are electronically controlled are difficult to tamper with, and in general produce very low levels of smoke. In attempting to strike a balance between emission reductions and cost burdens to fleets, the Board has adopted a provision that will exempt new engines from the fleet program for their first four model years. This will affect an estimated 26 percent of the California heavy-duty vehicle fleet, but these vehicles are expected to fail a smoke test at a rate of less than 1 percent of the time. It follows that the cost savings to fleets are in the neighborhood of 26 percent. By the time a heavy-duty vehicle reaches its fourth year, it may have logged close to 400,000 miles. At this point, increased maintenance is necessary, which is in line with the requirements of the fleet program.

2. Post-Repair Testing

Comment: CTA does not see the need in a post repair test. If the vehicle is repaired to manufacturers' standards, the vehicle is legal. This extra test is onerous and expensive. Simply providing the repair records should be proof of correction. We oppose the inclusion of the post repair test and ask that this be voluntary. (CTA)

Comment: As for the (Periodic Smoke Inspection Program and) after repair smoke test, they appear to provide limited, if any, benefit, yet impose potentially significant costs. EMA encourages ARB to consider the concerns of those most immediately impacted by those programs. (EMA)

Comment: The ARB proposes to require an explicit demonstration of correction for a vehicle failing a roadside smoke test or visual inspection that must include evidence that the vehicle has passed a post-repair test or inspection of the pertinent components. ATA supports this approach requiring verification of repairs. The ARB should, however allow fleets to use existing forms and reports of maintenance from the fleet as suitable demonstration of repairs rather than create a new specific requirement. (ATA)

Agency response: The preexisting regulations have required that a post-repair test be conducted where a vehicle tested under the fleet program exceeds the applicable opacity standards. (section 2192(a)(6).) The amendments add a parallel provision requiring a post-repair test for vehicles issued a citation or notice of violation for excessive smoke under the roadside program (section 2186(a)(3).) The post-repair smoke test serves as validation that the vehicle has received repairs sufficient to enable it to meet the applicable smoke opacity standard when set to the manufacturer's specifications. It is of particular importance in the case of a vehicle receiving a Notice of Violation (NOV). Under an NOV, no penalty is imposed, and some assurance is required to demonstrate that the vehicle meets the 55 percent opacity standard and is correctly set to the manufacturer's specifications.

Section 2186 (a)(1) identifies the information that must be contained on the required repair receipt or completed work order for repairs made at a repair facility. However, the regulations do *not* require that the information be submitted on a new form or report. As long as it contains the basic information listed in section 2186(a)(1) (A)-(E), an existing company form may be used.

3. Fines for First Violations

Comment: We would not be in favor of a program which imposed a substantial fine for the first time exhaust opacity violation. (R.L. Righetti Enterprises, Inc.)

Agency response: Health and Safety Code section 44011.6(l) requires that, with the exception of school buses, a citation carry a penalty of \$300. No penalty is required for a notice of violation as long as a timely repair is made and reported.

4. Grandfathering of SAE J1243 Smokemeters

Comment: Allowing for a “phase-in period” for the periodic self-inspection portion of the program may cause confusion in the field. Users cannot be expected to comprehend the differences between nonconforming devices and meters which meet the SAE J1667 specification requirements. While it is true that most J1243 type meters will read higher than their new counterparts, the reverse can sometimes also be true based on the smoke curve characteristics. The more prudent method of program administration would be to allow only the newer style SAE J1667 type meters to be used. This would be a bit more costly at the onset but would alleviate many headaches and problems for fleets as well as the ARB. Everyone should be measuring the same thing: A Bessel-filtered smoke plume from a snap-acceleration test done as per SAE J1667. (W. Staiger for SAE J1667 Committee and the Robert Bosch Corporation)

Agency response: Ideally, all smoke testing should be performed using SAE J1667-type smokemeters. Subsequent to July 1, 1999, this will be the case. The ARB does not wish, however, to penalize those fleets that, in good faith, purchased equipment (i.e., SAE J1243-type meters) in order to comply with the former regulations. The staff has estimated that those meters would have been in line for replacement (due to wear and tear) by 1999, and has established the sunset date accordingly. Fleets may contact the ARB if there is any question regarding which SAE specifications (J1243 or J1667) a particular meter was built to meet. Of course nothing precludes fleet owners from using SAE J1667-type meters in the fleet program from the beginning of the fleet program, and only SAE J1667-type meters may be used by ARB inspectors in the roadside program.

5. Exempt New Vehicles under the Roadside Program Unless Visibly Smoking

Comment: Federal Express would like to take this opportunity to recommend that the Roadside Smoke Inspection Program include provisions exempting vehicles less than five years old, unless they are visibly smoking. (Federal Express Company)

Agency response: In practice, roadside tests/inspections are typically performed only on vehicles that visibly exhibit significant levels of smoke. As such, an exemption of this sort is not necessary under the roadside program. While it is true that newer vehicles fail at a reduced rate, exceedances do still occur, and therefore it is not appropriate to exempt these vehicles from the roadside program.

6. Fair Mechanism to Remove NOV

Comment: CTA supports the mechanism of a notice of violation with repair required in 45 days but would like to see a fair mechanism that dismisses the notice should no repair be needed. (CTA)

Agency response: If no repair is needed because the engine produces high smoke levels when set to the manufacturer's specifications, the engine would be considered under the engine family exemption provision (section 2182(b)). In this case, the vehicle owner would notify the ARB that the vehicle continues to smoke despite being fully-repaired and set to the manufacturer's specifications, and the staff would perform an investigation in conjunction with the respective engine manufacturer. If the necessary criteria are satisfied, an exemption would be issued.

If the vehicle owner believes that no repair is necessary because the engine does not in fact exceed the applicable standard, he can challenge the test results before an Administrative Law Judge after a citation is issued.

7. Regulations Should Apply to *All* Trucks

Comment: The regulations should apply to *all* trucks and buses, not only to those in fleets of two or more. (B. Crowder)

Agency response: The roadside inspection program applies to all heavy-duty vehicles traveling on California's highways, including those that are singly owned or that are from other states and countries. When the Board originally adopted the fleet program, it concluded that there were significant distinctions between entities that own just one heavy-duty vehicle and those that own more than one. The amendments do not change the previously adopted approach of having the PSIP apply to only those entities that own two or more heavy-duty vehicles.

8. Definition of Excessive Smoke

Comment: While the industry strongly supports measures to get gross polluters off the road through measures like those proposed here by the ARB and other states, we still remain concerned regarding defining excessive in-use smoke emissions. Our overarching concern is that any state enforcement program be constructed properly so as not to hold owners of truck engines accountable for an in-use smoke enforcement level to which the engine was never designed to meet. (ATA)

Agency response: The regulations include a definition of “excessive smoke” because Health and Safety Code section 44011.6 provides that “the use of a heavy-duty vehicle that emits excessive smoke is prohibited.” The definition of excessive smoke in the regulations is tied directly to the programs’ opacity standards. While we acknowledge that new heavy-duty diesel engines are not certified to snap-acceleration smoke standards, we believe that the adopted standards are fully justified by the methodology set forth in the Technical Support Document.

C. Comments regarding the programs’ standards/cutpoints

1. Establish Stricter Cutpoints

Comment: To offset the impacts of program delays on the public, the cutpoints should be tightened. (Sierra Club)

Agency response: While it is unfortunate that potential emission reductions were not all realized during the suspension of the program, in order to comply with the requirements of AB 584 (i.e., no false failures) it was necessary to derive the cutpoints for the new program from analysis of real-world data obtained during the Truck Repair Study. The staff will report back to the Board in December of 1999 regarding the effectiveness of the NOV and cutpoint provisions of the programs and seek more stringent cutpoints if warranted.

2. Cutpoints and False Failures

Comment: We still remain concerned regarding the uncertainties that are inherent in measuring. The uncertainties lie in numerous places — the test procedure itself, the chosen level of smoke opacity enforcement, and other areas. We are concerned that as proposed, the 55 percent and 40 percent opacity standards may result in a program that violates California Health and Safety Code Section 44011.6, which requires that the program be designed so as to result in a zero false failure rate. We are uncertain as to whether this assurance could ever be made given the inherent uncertainties in the test procedure and its relationship to the engine certification levels. (ATA)

Comment: CTA does not believe the 55 percent cutpoint is sufficient to protect the pre-1991 model engines from false failures. As long as the mechanism for transitional opacities is included to protect older vehicles that fall between 55 percent and 70 percent opacities, we are neutral on the cutpoint issue. (CTA)

Agency response: The cutpoints of 55 percent and 40 percent were derived from a rigorous analysis of pre-repair and post-repair opacity values to which were added a

margin of error that accounts for uncertainties inherent in the testing process. As an additional safeguard, we have included the NOV mechanism for older vehicles that exceed the 55 percent standard (up to and including 69 percent opacity.) Additionally, there is an exemption process to a technologically-appropriate higher smoke standard for a small number of engine families that emit high smoke levels when set to manufacturers' specifications. Finally, an administrative appeal process is available under which citees may contest falsely-cited vehicles. All of these measures prevent the occurrence of false failures, or provide that they will be judiciously resolved should a false failure occur.

3. Abandon Exemptions in Favor of Higher Cutpoints

Comment: The ARB proposes to retain exemptions from the emissions standards that allow technologically less stringent standards for specific engine families as submitted by engine manufacturers. While we understand the practical reasoning behind this approach, the industry would much rather see a program that has globally taken all of these measures into consideration in the establishment of appropriate higher cutpoints (i.e., 70 percent). (ATA)

Comment: The ARB proposes to retain exemptions. SAE J1667 states the test procedure does not correlate or relate to the federal test procedure. Based on this fact, we believe exemptions interfere with setting proper cutpoints and violate the implementation of AB 584. The exemption process is only necessary when the cutpoints are not set appropriately. (CTA)

Agency response: During the previous administration of the roadside enforcement program, the staff and various engine manufacturers discovered a small number of engine families that exhibited high transient smoke levels during the snap-idle test. Many of the engine manufacturers requested exemptions that would allow for technologically-appropriate higher smoke opacity standards pursuant to the provisions in section 2182(c), title 13, California Code of Regulations. The Executive Officer granted eleven exemptions; nine for specific engine families and two for the application of an after-market turbo charger for specific engine families. These adjusted cutpoints range from 70 percent to 75 percent peak smoke opacity. Many of these engine families have on-board computers that may be reprogrammed during maintenance cycles to correct the high smoke levels.

These exemptions are important in maintaining program integrity and are further needed to comply with the "no false failure" (for engines set to manufacturers' specifications) provision required in statute. In light of this, the staff believes that the continuation of the exemption measure covering a very small number of the total diesel engine families operated in California better serves public health than an across-the-board reduction of the opacity standards.

D. Comments regarding the programs' benefits

1. Reduced Benefits of the Roadside Program

Comment: While we support the enactment of the amended HDVIP and PSIP, we are concerned that the revisions have reduced the overall air quality benefits of the original program by more than 25 percent due to a change in test procedure and exemptions for newer vehicles. (UCS)

Comment: Though we are very supportive of this effort, we are concerned that the revised program will result in significantly less emission reductions than the original program. (CCA)

Agency response: The reduced emission benefits of the new programs (as compared to the former programs) are necessitated by the requirements of AB 584 (Stats. 1993 ch. 570), which directed the ARB to adopt the SAE J1667 test procedures and smokemeters, and to ensure that no false failures occur in vehicle testing or that any false failures will be remedied without penalty. The four-year rolling exemption granted under the fleet program also contributes to this reduction in benefits, but the vehicles that are exempt are most likely the cleanest in the fleet and have an expected failure rate of less than 1 percent. Despite these effects, these revisions will still generate substantial emission reductions and an overall improvement to the programs.

E. Comments Received During the 15-Day Notice Period

Comment: Section 2190(a), title 13, California Code of Regulations provides that, with certain exceptions, the fleet program applies to heavy-duty diesel powered vehicles which operate on the streets or highways within the state of California. How about the gross offenders of heavy-duty diesel vehicles which operate *off* streets in CA? (Elisabeth A. Pforr)

Agency response: New heavy-duty off-road diesel engines have not been subject to California or federal emission standards until California standards were implemented in 1996 (section 2420, title 13, California Code of Regulations). Accordingly, it is not appropriate to subject in-use off-road vehicles to the smoke opacity standards developed for on-road heavy-duty vehicles. However, while there are no current regulations governing smoke emissions from in-use off-road equipment, it is an area of concern to the ARB, and such programs will be considered in the future.

Some fleets that operate both on-road and off-road heavy-duty diesel-powered vehicles and equipment have voluntarily elected to test their off-road equipment for smoke emissions. This provides both fuel and maintenance savings and projects an

environmentally proactive image to the community. The staff will continue to encourage fleets that operate both types of equipment to engage in voluntary inspections of their off-road equipment.